

DETAILED ACTION

1. This is in response to applicant's amendment wherein claims 1 and 3-6 have been amended and claim 2 has been canceled. Therefore, claims 1 and 3-7 are pending.
2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Abstract

3. The abstract of the disclosure is objected to because of grammatical errors. The entire abstract should be edited. Correction is required. See MPEP § 608.01(b).

Specification

4. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: the "space of wedge shape" as introduced in claim 1, line 4 and as referred to in claim 1, line 10 and lines 11-12 and claim 6, line 4 is not supported in the specification. Also, the term "reinforce rib" as stated in claim 1, line 15 is not supported in the original specification. Additionally, the limitation "for getting maxima cross section and minima air resistance" as stated in claim 1, lines 12-13 and claim 6, lines 4-5 lacks antecedent basis in the original disclosure for the specific and limiting terminology.
5. The disclosure is objected to because of the following informalities: the specification is generally narrative and fails to conform with current U.S. practice. It appears to be a literal translation into English from a foreign document and are replete

with grammatical and idiomatic errors. The entire specification should be edited for grammatical errors.

Appropriate correction is required.

Claim Objections

6. Claims 1-7 are objected to because of the following informalities: all the claims should be edited for grammatical errors. Please see the examples below as a reference.

- a. Claim 1, line 3, "a step existed" should read "a step ***exists***" or "a step ***existing***".
- b. Claim 1, lines 14-15, "has a shape as a reinforce rib" should read "***is shaped*** as a reinforce rib".
- c. Claim 6, line 2, "a exhaust port" should read "***an*** exhaust port".

Appropriate correction is required.

Claim Rejections - 35 USC § 112

7. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

8. Claims 1 and 3-7 are finally rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claim 1, line 4, line 10, and lines 11-12 and Claim 6, line 4, the "space of wedge shape" is considered new matter because there is no support for such language in the specification. Although applicant points to P1, lines 19-20 of the specification, it is unclear how this or any other part of the description conveys a "space of wedge shape". Applicant also suggests that fig. 2 supports such language; however, it is unclear how fig. 2 conveys a "space of wedge shape".

Claim 1, line 15, the "reinforce rib" is considered new matter because there is no support for such terminology in the specification. Applicant points to P3, line 27 – P4, line 3 and fig. 2; however, it is unclear how the specified parts of the description and the drawings suggest support for the term "reinforce rib".

Claim 1, lines 12-13 and claim 6, lines 4-5, the limitation "for getting maxima cross section and minima air resistance" is considered new matter because there is no support for such language in the specification.

9. Claims 1 and 3-7 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The claims are generally narrative and indefinite, failing to conform with current U.S. practice. They appear to be a literal translation into English from a foreign document and are replete with grammatical and idiomatic errors.

Claim 1, line 4, line 10, and lines 11-12 and Claim 6, line 4, the "space of wedge shape" is vague and indefinite. What is meant by a "space of wedge shape"? It is unclear what structure is encompassed by such terminology. Applicant is required to clarify and amend the claims as necessary.

Claim 1, lines 8-10, the limitation "the vent-slots on the sole gather together at a gather point near a middle center of a toes transverse line that is near a side of the space of wedge shape" is vague and indefinite. Are the "vent-slots" near a side of the space of wedge shape or is the "toes transverse line" near a side of the space of wedge shape? The vent-slots do not appear to be near the heel of the shoe which defines the "space of wedge shape"; hence, it is unclear what structure is encompassed by such a limitation. Applicant is required to clarify and amend the claim as necessary.

Claim 1, lines 14-15, the limitation "has a shape as a reinforce rib" is vague and indefinite. What is meant by "has a shape as a reinforce rib"? It is unclear what structure is encompassed by such language. Applicant is required to clarify and amend the claim as necessary.

Claim 1, lines 12-13 and claim 6, lines 4-5, the limitation "for getting maxima cross section and minima air resistance" is vague and indefinite. The terms "maxima" and "minima" do not appear to be proper and should respectively be replaced by "maximum" and "minimum". Additionally, it is unclear what is meant by the statement as

the terminology is not supported in the specification. Applicant is required to clarify and amend the claims as necessary.

In claim 7, the limitation "movable soft underlay" is vague and indefinite. It is not clear what structure is encompassed by such language.

Claim Rejections - 35 USC § 102

10. Claim 1 (as best understood) is finally rejected under 35 U.S.C. 102(b) as being anticipated by US 4,860,463 to Pin.

Regarding claim 1, Pin discloses a ventilated shoe with a heel (fig. 1) comprising: a step (fig. 1, see unlabeled step formed by ascent of heel) existing between the heel and a sole (1, 4, & 5) of the shoe, the step, sole and ground define a spaced of wedge shape (fig. 1); several vent-slots (51) on the sole, an air intake check valve (3), an air exhaust check valve (3), and an air chamber (2) located in a concave space on the heel (fig. 1); the vent-slots on the sole gather together at a gather point near a middle center of a toes transverse line that is near a side of the space of wedge shape (figs. 1, 2, & 7); and an air-gathering pipeline (13) is disposed in the space of wedge shape for getting maximum cross section and minimum air resistance (fig. 1), the air-gathering pipeline connects the gather point with the air intake check valve (fig. 7) and is shaped as a reinforce rib with an inclined top (fig. 5), a low end of the inclined top smoothly approaches the sole (fig. 1).

Claim Rejections - 35 USC § 103

11. Claim 1 (as best understood) is finally rejected under 35 U.S.C. 103(a) as being unpatentable over US 5,477,626 to Kwon in view of US 5,505,010 to Fukuoka.

Regarding claim 1, Kwon discloses a ventilated shoe with a heel (1) comprising: several vent-slots (4a) on a sole (3 & 4), an air intake check valve (10), an air exhaust check valve (12), and an air chamber (7) located in a concave space on the heel (fig. 1); the vent-slots on the sole gather together at a gather point near a middle center of a toes transverse line (fig. 1); and an air-gathering pipeline (3a) connects a gather point with the air intake check valve (fig. 1), and is shaped as a reinforce rib with an inclined top, a low end of the inclined top smoothly approaches the sole (fig. 1). It is unclear if Kwon discloses a step existing between the heel and a sole of the shoe, the step, sole, and ground defining a space of wedge shape; however, Fukuoka discloses a similar ventilated shoe with a heel comprising a step (fig. 1) existing between the heel and sole of the shoe, the step, sole and ground defining a space of wedge shape (fig. 1). It would have been obvious to one having ordinary skill in the art at the time of the invention to have incorporated the heel having a step and forming a space of wedge shape of Fukuoka in the ventilated shoe of Kwon in order to provide additional height to the wearer of the shoe as taught by Fukuoka and as a matter of obvious design choice. Subsequent the above described modification of Kwon in view of Fukuoka, the toes transverse line is near a side of the space of wedge shape and the air-gathering pipe line is disposed in the space of wedge shape.

12. Claims 1 and 3-6 (as best understood) are finally rejected under 35 U.S.C. 103(a) as being unpatentable over US 2004/0010939 to Liu et al. (Liu) in view of Kwon and Fukuoka.

Regarding claim 1, Liu discloses a ventilated shoe with a heel (100) comprising: several vent-slots (12) on a sole (10), an air intake check valve (51), an air exhaust check valve (53), and an air chamber (2) located in a concave space (fig. 16, 63) on the heel; the vent-slots on the sole gather together at a gather point near a middle center of a toes transverse line (fig. 7); and a convex air-gathering pipeline (4) being shaped as a reinforce rib with an inclined top, a low end of the inclined top smoothly approaching the sole (fig. 1). It is noted that the embodiment of fig. 16 does not display several vent-slots while the embodiment of fig. 7 does display several vent-slots; however, it would be obvious to one of ordinary skill in the art to add vent-slots to the embodiment of fig. 16 in order to enhance ventilation (paragraphs [0029] and [0038]).

It is unclear if Liu discloses a step existing between the heel and a sole of the shoe, the step, sole, and ground defining a space of wedge shape; however, Fukuoka discloses a similar ventilated shoe with a heel comprising a step (fig. 1) existing between the heel and sole of the shoe, the step, sole and ground defining a space of wedge shape (fig. 1). It would have been obvious to one having ordinary skill in the art at the time of the invention to have incorporated the heel having a step and forming a space of wedge shape of Fukuoka in the ventilated shoe of Kwon in order to provide additional height to the wearer of the shoe as taught by Fukuoka and as a matter of obvious design choice. Subsequent the above described modification of Kwon in view of Fukuoka, the toes transverse line is near a side of the space of wedge shape and the air-gathering pipe line is disposed in the space of wedge shape.

Additionally, Liu discloses the air-gathering pipeline connecting a gather point with the air exhaust check valve instead of connecting the gather point and the air intake check valve; however, Kwon discloses a similar ventilated shoe with a heel (1) having several vent-slots (4a) on a sole (3 & 4), an air intake check valve (10), an air exhaust check valve (12), and an air chamber (7) located in a concave space on the heel (fig. 1). A convex air-gathering pipeline (3a) connects a gather point of the vent-slots and the air intake check valve (fig. 1). It would have been obvious to one having ordinary skill in the art at the time of the invention to have reversed the positioning of the air intake check valve and air exhaust check valve of Liu in order to facilitate flow of fresh air into the interior of the shoe by suctioning waste air from inside the shoe and expelling it into the atmosphere as taught by Kwon (col. 3, lines 42-49) and as a matter of obvious design choice and intended use. Additionally, it has been held that a mere reversal of the essential working parts of a device involves only routine skill in the art. *In re Einstein*, 8 USPQ 167. Subsequent to the above modification, any references hereinafter to the air exhaust check valve (53) and air intake check valve (51) will be reversed as the air exhaust check valve (51) and the air intake check valve (53).

Regarding claim 3, Liu discloses a pipe (22) connecting the air intake check valve (53) and the air chamber (2) but is silent as to the pipe being latex; however, it would have been obvious to one having ordinary skill in the art at the time of the invention to have used latex to form the pipe as such materials are well known in the art for their durable, hygienic, and economical qualities in view of Applicant's Admitted Prior Art (since Applicant did not traverse the examiner's use of Official Notice in the previous

office action, the conventional use of latex for pipe structures has become Applicant's Admitted Prior Art) and because it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

Regarding claims 4 and 5, Liu discloses a top surface of the air chamber (2) being of a convex shape (figs. 9 & 16). An annular surface of the air chamber and an annular surface of the heel are on a same plane (fig. 15).

Regarding claim 6, Liu discloses an exhaust port (21) and an intake port (22) which are parallel with each other (fig. 16) and a L-shaped installation groove (62) which is set on the space of wedge shape for getting maxima cross section and minima air resistance (figs. 16 & 17). The exhaust port is connected to the air exhaust check valve (51) through a soft pipe (3) mounted on the L-shaped installation groove and the exhaust valve is opened to the atmosphere.

13. Claims 3-5 (as best understood) are finally rejected under 35 U.S.C. 103(a) as being unpatentable over Pin.

Regarding claim 3, Pin discloses a pipe (35) connecting the air intake check valve (3) and the air chamber (2) but does not specify the pipe being latex; however, it would have been obvious to one having ordinary skill in the art at the time of the invention to have used latex to form the pipe in the ventilated shoe of Pin as such materials are well known in the art for their durable, hygienic, and economical qualities in view of Applicant's Admitted Prior Art (since Applicant did not traverse the examiner's use of Official Notice in the previous office action, the conventional use of latex for pipe

structures has become Applicant's Admitted Prior Art) and because it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

Regarding claims 4 and 5, Pin discloses a top surface of the air chamber (2) being of a convex shape (fig. 1). An annular surface of the air chamber and an annular surface of the heel are on a same plane (fig. 1).

14. Claim 7 (as best understood) is finally rejected under 35 U.S.C. 103(a) as being unpatentable over Liu/ Kwon/Fukuoka as applied to claims 1 and 3-6 above, and further in view of US 1,576,767 to Chauncey et al. (Chauncey).

Regarding claim 7, Liu, Kwon, and Fukuoka do not disclose a moveable soft underlay inside the soft pipe; however, Chauncey discloses coating the interior surfaces of pipes with a soft moveable material such as rubber or latex (lines 16-49). It would have been obvious to one having ordinary skill in the art at the time of the invention to have incorporated the soft moveable coating/underlay of Chauncey inside the soft pipe of the modified ventilated shoe with a heel of Liu/Kwon/Fukuoka in order to insure hermetic sealing and protect the pipe from internal damage as taught by Chauncey (lines 11-15).

Response to Arguments

15. Applicant's arguments filed September 9, 2009 and January 14, 2010 have been fully considered but they are not persuasive.

In response to applicant's argument that none of the cited prior art references disclose a structure for reducing air resistance, a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. In this case, all of the cited references disclose the claimed structures and are capable of getting maximum cross section with minimum air resistance.

In response to applicant's argument that Kwon and Liu do not have a heel step, such arguments are rendered moot in view of the new grounds of rejection featuring Fukuoka as the modifying reference to provide a heel step and a "space of wedge shape" to each of the ventilated shoes of Kwon and Liu.

In response to applicant's argument that Pin does not disclose several of the specified limitations, the examiner respectfully disagrees. All of the claimed structures are addressed in detail in the rejection of claim 1 above.

In response to applicant's argument that the underlay/coating of Chauncey prevents corrosion while the moveable underlay of applicant is "for supporting the pipe to keep through for air", the examiner respectfully disagrees. In as much as the "moveable soft underlay" is claimed, the coating/underlay of Chauncey anticipates the limitation as it is described as being formed of a moveable, soft material such as rubber or latex and is present on the interior surfaces of pipes. Whether Chauncey suggests the coating/underlay is used for preventing corrosion is irrelevant as the claimed structure is disclosed. Additionally, there has been no indication that it is common

knowledge that an "underlay" functions in "supporting the pipe keeping through for air". Furthermore, it is unclear what is meant by "an underlay for supporting the pipe keeping through for air" as is stated in applicant's "Remarks"; hence, it is still unclear what structure is encompassed by such terminology.

Conclusion

16. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to MELISSA L. LALLI whose telephone number is (571)270-5056. The examiner can normally be reached on Monday-Friday 7:30 AM-5:00 PM (EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mickey Yu can be reached on (571) 272-4562. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

18. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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